



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/023,111	12/17/2001	Michael de La Chapelle	7784-000355	2414

27572 7590 06/15/2004

HARNES, DICKEY & PIERCE, P.L.C.
P.O. BOX 828
BLOOMFIELD HILLS, MI 48303

EXAMINER

LELE, TANMAY S

ART UNIT	PAPER NUMBER
----------	--------------

2684

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/023,111

Applicant(s)

CHAPELLE ET AL.

Examiner

Tanmay S Lele

Art Unit

2684

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1 – 20 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1 – 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ronald (Ronald, US Patent No. 5,880,867) in view of Hiett (Hiett, US Patent No. 6,477,152) and in further view of Morris et al. (Morris, UK Patent Application No. 2,347,806).

Regarding claims 1 and 10, Ronald teaches of a system and method for providing wireless communication within a local area network (LAN) onboard a mobile platform (Figures 11 and 12), said system comprising: at least one transceiver located in a passenger seating area (Figures 11 and 12 and column 17, lines 3 –15); at least one passenger service unit (PSU) located above the passenger seating area, said PSU comprising at least one PSU transceiver (Figures 11 and 12 and starting column 16, line 60 and ending column 17, line 2 and column 15, lines 1 –9); and a direct path infrared (IR) signal transmission link between said transceiver and said PSU transceiver, said direct path IR transmission link configured to transmit data between said transceiver and said PSU transceiver (Figures 11 and 12 and starting column 16, line 60 and ending column 17, line 15 and column 15, lines 1 –9).

Ronald does not specifically teach of [at least one] seat [transceiver located in a passenger seating area] or of mounted to each of a plurality of passenger seats (though it should be noted that Ronald teaches of transceiver in the seating area, in column 17, lines 5 –10 and further in column 17, lines 55 – 58).

In a related art dealing with an aircraft LAN, Hiatt teaches of [at least one] seat [transceiver located in a passenger seating area] (column 5, lines 22 –30).

It would have been obvious to one skilled in the art at the time of invention to have included into Ronald's wireless local area communication system, Hiatt's seat back transceiver interface, for the purposes of making communications media available to all occupants and further provide displaying means for such, as taught by Hiatt.

Ronald in view of Hiatt do not specifically teach of mounted to each of a plurality of passenger seats (though as noted Heitt does teach that the receiver user interface comprise seat-back displays or computers connected to the router as per column 5, lines 27 –30).

In a related art with optical transceivers, Morris teaches of mounted to each of a plurality of passenger seats (page 7, paragraph 1).

It would have been obvious to one skilled in the art at the time of invention to have included into Ronald in view of Hiatt's wireless local area communication system, Morris's individual seat transceivers, for the purposes of disseminating in-flight entertainment to all fliers, as taught by Morris.

Regarding claims 2 and 11, Ronald in view of Hiatt and Morris, teach all the claimed limitations as recited in claims 1 and 10. Hiatt further teaches of wherein said seat transceiver is mounted on a top portion of a display unit attached to a passenger seat (column 5, lines 22 –30).

Regarding claim 3, Ronald in view of Hiett and Morris, teach all the claimed limitations as recited in claim 1. Ronald further teaches of wherein said PSU transceiver is configured to have a direct path IR signal transmission link with a plurality of seat transceivers, thereby providing a redundant optical signal path to adjacent said seat transceivers (Figure 12 and column 17, lines 52 –55).

Regarding claim 4, Ronald in view of Hiett and Morris, teach all the claimed limitations as recited in claim 1. Ronald further teaches of wherein said plurality of seat transceivers are interconnected with inter-seat wiring, such that a blockage of said direct path IR signal transmission to one of said plurality of seat transceivers does not result in a loss of transmission of data between said PSU transceiver and said seat transceiver having the direct path IR signal transmission blocked (column 17, lines 58 –62 and column 15, lines 50 –58).

Regarding claims 5 and 12, Ronald in view of Hiett and Morris, teach all the claimed limitations as recited in claims 1 and 10. Hiett further teaches of wherein said seat transceiver configured to connect to at least one interface, said interface configured for connection with a client system using at least one of a Ethernet RJ-45 connection, a firewire connection, and a USB connection (column 5, lines 10 –15).

Regarding claim 6, Ronald in view of Hiett and Morris, teach all the claimed limitations As recited in claim 1. Both Ronald and Hiett further teach of further comprising a server configured to exchange communication with said PSU (Ronald: column 14, lines 42 –55 and Hiett: starting column 2, line 64 and ending column 3, line 2).

Regarding claim 7, Ronald in view of Hiett and Morris, teach all the claimed limitations as recited in claim 6. Hiett further teaches of wherein said PSU configured to filter data packets

from a signal transmitted between said server and said PSU prior to transmitting the direct IR signal to said seat transceiver, such that an entire amount bandwidth of the signal between said sever and said PSU is not transmitted to said seat transceiver (starting column 4, line 6 and ending column 5, line 1; note definition as per paragraph 0031, pages 12 and 13).

Regarding claim 8, Ronald in view of Hiett and Morris, teach all the claimed limitations as recited in claim 6. Both Ronald and Hiett teach of wherein said server further configured to exchange communication with a ground station via a satellite communications link, said ground station configured to access a terrestrial Internet (Ronald: column 14, lines 39 –40 and column 18, lines 21 –25; Hiett: Figure 7 and column 4, lines 14 –56).

Regarding claim 9, Ronald in view of Hiett and Morris, teach all the claimed limitations as recited in claim 6. Both Ronald and Hiett teach of wherein said server further configured to provide Internet data service to said client system utilizing the satellite communication link to said ground station (Ronald: column 14, lines 39 –40 and column 18, lines 21 –25; Hiett: Figure 7 and column 4, lines 14 –56).

Regarding claim 13, Ronald in view of Hiett and Morris, teach all the claimed limitations as recited in claim 10. Ronald further teaches of wherein transmitting data comprises: providing a direct path IR transmission link to a plurality of seat transceivers interconnected with inter-seat wiring, thereby providing a redundant optical path to adjacent seat transceivers (Figure 12 and column 17, lines 52 –55) transmitting data from one of the plurality of seat transceivers to another of the plurality of seat transceiver, via the inter-seat wiring, when the direct IR link to one of the plurality of seat transceivers is blocked (column 17, lines 58 –62 and column 15, lines 55 –58).

Regarding claim 14, Ronald in view of Hiatt and Morris, teach all the claimed limitations as recited in claim 10. Hiatt further teaches of wherein the LAN further includes a server for exchanging communication with the PSU, and wherein transmitting data comprises filtering data packets from a signal transmitted between the server and the PSU prior to transmitting the direct IR signal to the seat transceiver, such that an entire amount of bandwidth of the signal between the sever and the PSU is not transmitted to the seat transceiver (starting column 4, line 6 and ending column 5, line 1; note definition as per paragraph 0031, pages 12 and 13).

Regarding claim 15, Ronald in view of Hiatt and Morris, teach all the claimed limitations as recited in claim 6. Both Ronald and Hiatt teach wherein the server utilizes a satellite communication link to exchange communication with a ground station capable of accessing a terrestrial Internet (Ronald: column 14, lines 39 –40 and column 18, lines 21 –25; Hiatt: Figure 7 and column 4, lines 14 –56), and wherein transmitting data comprises utilizing the satellite communication link to provide Internet data service from the terrestrial Internet to the client system (Ronald: column 14, lines 39 –40 and column 18, lines 21 –25; Hiatt: Figure 7 and column 4, lines 14 –56).

Regarding claim 16, Ronald teaches of a method for providing wireless communication within a local area network (LAN) located on a mobile platform (Figures 11 and 12), said method comprising: locating at least one passenger service unit (PSU) above a passenger seating area each PSU including a PSU transceiver and adapted to exchange communications with at least one LAN server onboard the mobile platform (Figures 11 and 12 and column 17, lines 3 – 15 and starting column 16, line 60 and ending column 17, line 2 and column 15, lines 1 –9); providing a direct path IR signal transmission link between the PSU transceiver adapted to

Art Unit: 2684

exchange communication with the PSU transceiver (Figures 11 and 12 and starting column 16, line 60 and ending column 17, line 15 and column 15, lines 1 –9) providing a redundant optical signal path to reduce signal interference (column 15, lines 50 –58); and providing at least one interface port connected to the transceiver, such that a passenger can connect a client system to the interface port and thereby access the LAN server (column 17, lines 3 –15).

Ronald does not specifically teach of [at least one of a plurality of] seat [transceivers]; and wherein each seat transceiver is mounted to a respective one of a plurality of passenger seats (though it should be noted that Ronald teaches of transceiver in the seating area, in column 17, lines 5 –10 and further in column 17, lines 55 – 58 and though as noted Heitt does teach that the receiver user interface comprise seat-back displays or computers connected to the router as per column 5, lines 27 –30).

In a related art dealing with an aircraft LAN, Hiatt teaches of [at least one] seat [transceiver located in a passenger seating area] (column 5, lines 22 –30), as well as of and providing at least one interface connected to the transceiver, such that a passenger can connect a client system to the interface port and thereby access the LAN (column 5, lines 10 –15).

It would have been obvious to one skilled in the art at the time of invention to have included into Ronald's wireless local area communication system, Hiatt's seat back transceiver interface, for the purposes of making communications media available to all occupants and further provide displaying means for such, as taught by Hiatt.

Ronald in view of Hiatt do not specifically teach of wherein each seat transceiver is mounted to a respective one of a plurality of passenger seats (though as noted Heitt does teach

that the receiver user interface comprise seat-back displays or computers connected to the router as per column 5, lines 27 –30).

In a related art with optical transceivers, Morris teaches of wherein each seat transceiver is mounted to a respective one of a plurality of passenger seats (page 7, paragraph 1).

It would have been obvious to one skilled in the art at the time of invention to have included into Ronald in view of Hiett's wireless local area communication system, Morris's individual seat transceivers, for the purposes of disseminating in-flight entertainment to all fliers, as taught by Morris.

Regarding claim 17, Ronald in view of Hiett and Morris, teach all the claimed limitations as recited in claim 16. Hiett further teaches of wherein providing a direct path IR transmission link comprises mounting the seat transceiver on a top portion of a display unit attached to a passenger seat (column 5, lines 22 –30).

Regarding claim 18, Ronald in view of Hiett and Morris teach all the claimed limitations as recited in claim 16. Ronald further teaches of wherein providing a redundant optical signal path comprises: providing a direct path IR transmission link to a plurality of seat transceivers interconnected with inter-seat wiring, thereby providing a redundant optical path to adjacent seat transceivers (column 17, lines 58 –62 and column 15, lines 50 –58); transmitting data from one of the plurality of seat transceivers to another of the plurality of seat transceiver, via the inter-seat wiring, when the direct IR link to one of the plurality of seat transceivers is blocked (column 17, lines 58 –62 and column 15, lines 50 –58).

Regarding claim 19, Ronald in view of Hiett and Morris teach all the claimed limitations as recited in claim 16. Ronald further teaches of wherein providing a direct path IR transmission

Art Unit: 2684

link comprises: transmitting data between the seat transceiver and the PSU transceiver using the direct path IR transmission link (Figures 11 and 12 and column 17, lines 3 –8); and Hiett further teaches of connecting a client system to the interface port using at least one of a Ethernet RJ-45 connection, a firewire connection, and a USB connection (column 5, lines 10 –15).

Regarding claim 20, Ronald in view of Hiett and Morris teach all the claimed limitations as recited in claim 16. Both Ronald and Hiett teach of wherein the server utilizes a satellite communication link to exchange communications with a ground station capable of accessing a terrestrial Internet, and wherein transmitting data comprises: utilizing the satellite communication link to provide Internet data service from the terrestrial Internet to the client system (Ronald: column 14, lines 39 –40 and column 18, lines 21 –25; Hiett: Figure 7 and column 4, lines 14 –56), and Hiett further teaches of filtering data packets from a signal transmitted between the server and the PSU prior to transmitting the direct IR signal to the seat transceiver, such that an entire amount of bandwidth of the signal between the sever and the PSU is not transmitted to the seat transceiver (starting column 4, line 6 and ending column 5, line 1; note definition as per paragraph 0031, pages 12 and 13).

Citation of Pertinent Prior Art

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Inventor	Publication	Number	Disclosure
Bertagna et al.	European Patent Application	739,816	Passenger Control Unit with Security Control
Berry et al.	World Intellectual Property Organization	WO 98/54900	Apparatus for Providing Aircraft Entertainment
Kuo	US Patent	4,428,078	Wireless Audio Passenger

Art Unit: 2684

			Entertainment System (WAPES)
Bartles et al	German Patent Office	DE 3,719,105	Aircraft passenger seat with built-in information system - has receiver of modulated infrared conveying audio and-or video signals wirelessly

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tanmay S Lele whose telephone number is (703) 305-3462. The examiner can normally be reached on 9 - 6:30 PM Monday – Thursdays and on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay A. Maung can be reached on (703) 308-7745. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Art Unit: 2684

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.


Tanmay S Lele
Examiner
Art Unit 2684

tsl
June 3, 2004


NAY MAUNG
SUPERVISORY PATENT EXAMINER